Nomenclature of *Sessea corymbiflora* (Solanaceae) and its Occurrence in Venezuela

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ABSTRACT. The occurrence of *Sessea corymbiflora* in Venezuela is reported for the first time. It is presented here as a new species and an additional genus for the solanaceous flora of Venezuela. A description and illustration of the species are provided. The contorted nomenclature of *S. corymbiflora* is discussed, and the names *S. corymbosa* and *S. atrovirens*, in current use as referring to distinct entities, are reduced to synonymy.

Sessea, a poorly known genus mainly of Andean regions of South America, was hitherto unknown in Venezuela. The plants and their flowers closely resemble those of the much larger genus *Cestrum*, but the fruits and seeds are quite distinctive. The species reported here was discovered among specimens of *Cestrum* while the authors worked on a taxonomic revision of this genus.

Sessea was first described by Ruiz & Pavón in their series of works on the flora of Peru and Chile. The genus was described and illustrated in the *Prodromus* (1794), two species were described in the *Systema Vegetabilium* (1798), and these were illustrated in the *Flora Peruvianae et Chilensis* (1799). The species reported here, *S. corymbiflora* Taylor & Phillips, was described two decades later from material collected in Colombia. The larger genus *Cestrum*, which is similar to *Sessea*, was described by Linnaeus in 1753.

Besides the original descriptions noted and other minor comments, the genus has had overall consideration by only three botanists, Bitter (1922), Francey (1933, 1934, 1935: 46–51), and Toledo (1941). Bitter arranged species into five series, and Francey and Toledo provided keys to the species published up to the time of their works. Diversity is apparently greatest in Peru, Ecuador, and Colombia, although two species occur in Brazil, one is recorded from Haiti, and we report one from Venezuela.

THE GENUS *SESSEA*

Sessea Ruiz & Pavón, Fl. Peruv. 21. 1794. TYPE: *S. stipulata* Ruiz & Pavón, (lectotype, designated by D'Arcy, Solanac. Newsl. 2(4): 30. 1986).

Sesseopsis Hassler, Ann. Cons. Jard. Bot. Genève. 20: 183. 1916. TYPE: *S. vischeri* (Chodat) Hassler = *Sessea vischeri* Chodat cf. Hunziker (1977).

In traditional classifications (D'Arcy, 1991), *Sessea* is placed in the Solanaceae in tribe Cestreae of subfamily Cestroideae. This tribe comprises five genera. Three of these are monotypic with widely separated distributions (D'Arcy, 1992): *Metternichia*—Rio de Janeiro, Brazil; *Tsoala*—western Madagascar; and *Vestia*—south-central Chile. Each of these has corollas and fruit quite different from *Sessea*, although *Vestia* is most similar in overall appearance. The remaining two genera are *Sessea* and *Cestrum*. *Cestrum* includes over 150 species distributed throughout warm regions of the Americas, and it is the only genus in the tribe with a juicy, berry fruit that is dispersed by birds. All members of tribe Cestreae except *Cestrum* have a dry capsule. In *Tsoala*, dehiscence of the capsule is unknown, but in *Sessea*, *Vestia*, and *Metternichia*, the capsule is longitudinally dehiscent.

Sessea corymbiflora Goudot ex Taylor & Phillips, Phil. Mag. 3: 132. 1828. TYPE: in woods near Bogotá, *Goudot 1* (lectotype, P; isolectotypes, K not seen, G-DC not seen, microfiche MO, G). Figure 1.

Sessea corymbosa Miers, Hook. London J. Bot. 5: 156. 1846. Syn. nov. TYPE: Bogotá ad Barro Blanco, *Goudot 1* (holotype, K not seen; isotypes, G-DC not seen, microfiche MO, P, G).

Cestrum atrovirens Dunal in DC., Prodr. 13(1b): 648. 1852. Syn. nov. *Sessea atrovirens* (Dunal) B. D.

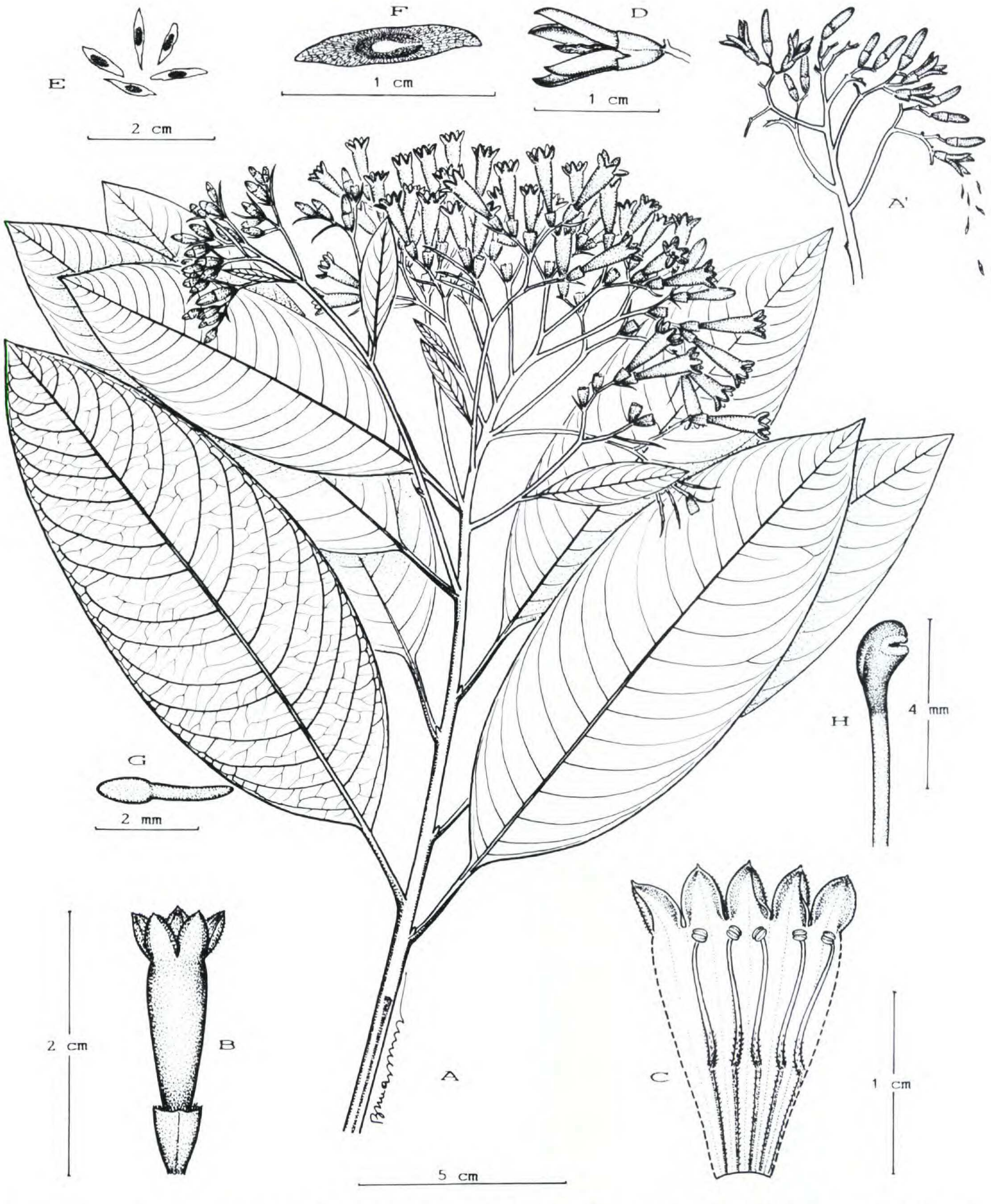

Figure 1. *Sessea corymbiflora* Goudot ex Taylor & Phillips (*Ruiz Teran 7552*, MERF). —A. Habit with inflorescence. —A'. Infructescence. —B. Flower, lateral view. —C. Opened flower. —D. Opened capsule. —E. Seeds. —F. Seed showing body and wing. —G. Embryo. —H. Stigma.

Jackson, Ind. Kew. 2: 892. 1895. Redundant combination in Bitter, Feddes Repert. 18. 223. 1922. TYPE: Peru. Quito: *Hartweg 1309* (holotype, G; isotypes, B, K, neither seen, P).

Shrubs or *trees* to 16 m tall; unarmed, pubescence of reduced moniliform simple hairs to 0.5 mm long, glabrous on most parts; twigs angled from the petiole bases and often striate-furrowed. *Leaves* 11–15 per twig, not odorous, perennial, elliptical, occasionally ovate or obovate, mostly 9–13(–20) × 3–5(–6) cm, apically obtuse or acute, sometimes slightly short-acuminate, basally obtuse, margins

sometimes slightly revolute, glabrous or with occasional reduced trichomes near the base, coriaceous or firmly membranous, costa drying dark above, elevated and excurrent beneath, major veins 17–20, mostly evenly spaced 3–6 mm apart, arcuate at 30–40° to the costa, plane above, finely reticulate beneath, drying reddish or slate-gray; minor leaves mostly wanting, when present oblong, to 6 cm long and resembling the major leaves; petioles mostly slender, 5–25 mm long, slightly scurfy with reduced trichomes, drying darker than the leaf, especially at the base. *Inflorescences* lax, crowded, terminal corymbs to 6 cm long; peduncles and pedicels drying dark, pedicels wanting, bracts few, scattered among the inflorescence and resembling reduced leaves; pedicels obsolete; bracteoles 1.5 mm long, narrowly ovate or linear, glabrate with sparse, reduced, glandular-appearing trichomes, soon caducous. *Flowers* numerous (83), crowded, malodorous, 12–20 mm long; calyx dark green, tubular-obconical, 5–6 × 4 mm, outside glabrous, the costas sometimes conspicuous, the lobes sinuate-deltoid, 0.5 mm long, minutely ciliate, but not tufted apically, pubescent within; corolla green with purple areas, exserted 9–13 mm from the calyx, tube 13–18 mm long, basally slender, 1 mm wide, expanding about ⅓-way up to 4–5 mm wide, glabrous outside, the fine nerves inconspicuous, glabrous within, the lobes 1–3 mm long, obtuse or rounded, glabrous outside; stamen insertion levels subequal, filaments adnate 6–7 mm, 6 mm free, the free insertion 1.5–2 mm, distal free portion 5 mm long, insertion tumid, a few minute hairs present just below the insertion, distal portion glabrous; style 12–13 mm, glabrous, stigma unequally bilobate, the two lobes forming a mouth flanking the stigmatic surface; ovary glabrous, subsessile, ovules 6–8. *Fruit* a woody, apically dehiscent capsule, 6–7 mm long, the valves 4, linear, 2.5 mm wide at the base; fruiting calyx slightly accrescent, 6–7 mm, enclosing the base of the capsule, splitting irregularly; seeds 5–12, appearing flat and 14–15 mm long overall, the seed itself ellipsoidal, 3–4 × 1 mm, chestnut brown, surrounded by a light green, membranous, minutely reticulate, oblong wing extending 3–4 mm beyond each end of the seed and 0.25 mm on each side, the ends pointed or rounded, sometimes with one or more narrow wings in another plane; embryo white, 2.5–3 mm long, the hypocotyl straight, terete, the epicotyl laminar, broadly elliptical, forming ¼ the length of the embryo.

This species is distinct from most other members of the genus in being almost glabrous throughout. Pubescence is only found sparingly near leaf bases, on calyx and corolla lobes, and on emerging buds. The Venezuelan collections examined are quite like those from the other countries where the species occurs, Colombia and Ecuador.

This species is found in dense forests at upper elevations (2,200–2,900 m in Venezuela–Colombia, to 3,500 m in Ecuador) on rocky soils in subparamo areas. In Venezuela it is restricted to the western Andean region. In Ecuador it has been collected in both the area of the volcanos and in the area south of them, two regions that support generally different floras. In Colombia it is recorded from southern parts of the eastern and central cordilleras.

The name of this species has been the subject of considerable confusion. It was first noted in print when Taylor & Phillips, before the Linnean Society of London on 15 January 1827, read "Descriptions of three new species of plants, natives of New Granada, by M. Gondot [sic], Professor of Botany at Bogotá." One of these was "*Sessea corymbiflora, foliis obovatis attenuatisque, floribus corymbosis*—In woods near Bogotá." However, when Goudot distributed his specimens to institutions in Paris, London, Geneva, and perhaps other places, he labeled them *S. corymbosa*, and the locality on the lectotype sheet says, "Bogotá, Barro Blanco in el Boquerón." Later, when Miers, Dunal, and others referred to the species, they called it *S. corymbosa*, perhaps not knowing of its earlier description as *S. corymbiflora*.

Shortly after Goudot's record Theodor Hartweg collected a plant near Popoyán, some 375 km from Bogotá, that was also sent to various European institutions. This specimen, *Hartweg 1309*, was first recognized as new by Bentham in his *Plantae Hartwegianae* of 1846 (p. 239, date from McVaugh, 1970), but was not named then. In 1852, Dunal (p. 597) described it as *Cestrum atrovirens*, but he attributed the specimen to Quito (Peru then, Ecuador now). In 1857, in the same *Plantae Hartwegianae* series (p. 358), Bentham identified the Hartweg collection as *S. corymbosa*, but later (Bentham & Hooker, 1876: 904) he noted that *Cestrum atrovirens* was a species of *Sessea*. Much later, Bitter reported on the species, separating *S. corymbosa* from *S. atrovirens* because he had not seen the Goudot material from which *S. corymbosa* was described. More recently, Francey (1934: 989) and Toledo (1941) followed Bitter in recognizing two species.

We have examined both the Goudot and Hartweg specimens and conclude that they are the same species with little variation between them.

Material examined. COLOMBIA. *Hartweg s.n.*, sine loc. (fl) 1309 (P, G-photo, B-photo) (type of *S. atrovirens*). **Valle:** Mpio. Tulúa, Corr. Santa Lucía, Hda. La Cascada, Cerros del Japón, 2,900 m, (fl) *Devia & Prado 1999* (MO); Mpio. Tulúa, Corr. Santa Lucía, finca San Luis, bosque en bocatoma del acueducto, 2,800 m, (fr) *Devia 732* (MO). **Cundinamarca:** Bogotá, Barro Blanco en el Boquerón, 2,700–2,900 m, (fl, fr) *Goudot 1* (P, G, G-DC, not seen, microfiche MO); Bogotá, 2,700 m, (fl) *Triana 2316* (P-2 sheets). ECUADOR. **Loja:** 10 km SW of Loja along road past University toward La Violeta, 2,950 m, (fr) *van der Werff & Palacios 9076* (MO). **Carchi:** Cantón Montufar, Loma El Corazón (Bretaña), al sureste de Huaca, al este de la Colonia Huaquena, Río Minas, 3,200–3,500 m, (fl) *Tipaz 43* (MO). **Imbabura:** Cantón Otovalo, Parroquia San Luis de Quichinche, sitio San Alberto, 2,850 m, (fr) *Moran et al. 40* (MO); Cantón Otovalo, Parroquia San Luis de Quichinche, sitio San Alberto, 2,700–2,900 m, (fl) *Moran et al. 59* (MO). VENEZUELA. **Mérida:** Páramo Las Nieves 48 km S de Estanquez, Dist. Sucre, 2,500 m, (fl, fr) *Benítez et al. 4839* (MO, MY + duplicates). **Táchira:** Bosque sempreverde denso, Parque Nacional Los Páramos, quebrada Los Pos, carretera Pregonero–El Portachuelo, Dist. Uribante, 2,300 m, (fr) *Benítez & Rojas 4741* (F, MER, MERF, MO, MY, PORT, US, VEN); on steep slopes in woods, NW of Queniquea toward alcabala El Zumbador, Dist. Jaúregui, 2,400 m, (fr) *D'Arcy & Benítez 18266* (MO, MY + duplicates); 1 km SE de la alcabala Páramo El Zumbador, 7 km del pueblo El Cobre, Mpio. Jaúregui, 2,750 m, (fl) *Pietrangeli 390* (MY). **Trujillo:** entre el Alto de Tuñame y quebrada El Pajarito, carr. Tuñame–Las Mesitas, 2,950–2,900 m, (fl) *López-Palacios 7552* (MY). **Dist. Boconó:** orillas de la quebrada El Pajarito entre Tuñame y Las Mesitas, 2,900 m, (fl) *Ruiz-Terán & López-Figueiras 2205* (MY).

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